## CALIFORNIA FISH AND GAME COMMISSION NOTICE OF FINDING

NOTICE IS HEREBY GIVEN that, pursuant to the provisions of Fish and Game Code Section 2074.2, the California Fish and Game Commission (Commission), at its December 4, 2003, meeting in Sacramento, rejected the petition filed by the Center for Biological Diversity, the Santa Clara Valley Audubon Society, Defenders of Wildlife, San Bernardino Valley Audubon Society, California State Park Rangers Association and the Tri-County Conservation League to list the western burrowing owl (*Athene cunicularia hypugaea*) as an endangered or threatened species under the California Endangered Species Act, Fish and Game Code section 2050 et seq. The Commission's decision was based on a finding that the petition did not provide sufficient information to indicate that the petitioned action may be warranted. At the December 4 meeting the Commission also announced its intention to adopt at its February 5, 2004 meeting in Long Beach a written finding and statement of reasons.

NOTICE IS ALSO GIVEN that at its February 5, 2004 formal meeting in Long Beach the Commission adopted the following formal finding and statement of the reasons for its rejection of the petition.

## FINDING RELATING TO THE PETITION TO LIST THE WESTERN BURROWING OWL AS ENDANGERED OR THREATENED

#### I LEGAL STANDARDS

A species is endangered under California Endangered Species Act, Fish and Game Code section 2050 et seq. (CESA), if it "is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, over exploitation, predation, competition, or disease." (Fish & G. Code, § 2062.) A species is threatened under CESA if it is "not presently threatened with extinction [but] is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by [CESA]..." (Fish & G. Code, § 2067.) The responsibility for deciding whether a species should be listed as endangered or threatened rests with the Fish and Game Commission (Commission). (Fish & G. Code, § 2070.)

California law does not define what constitutes a "serious danger" to a species, nor does it describe what constitutes a "significant portion" of a species' range. The Commission makes the determination as to whether a species currently faces a serious danger of extinction throughout a significant portion of its range, (or for a listing as threatened whether such a future threat is likely) on a case-by-case basis after evaluating and weighing all the biological and management information before it. This approach is consistent with the process followed by federal agencies in deciding whether to list species under the federal Endangered Species Act, 16 U.S.C. § 1531 et seq.

Non-emergency listings involve a two-step process: first, the Commission "accepts" a petition to list the species, which immediately triggers regulatory protections for the species as a candidate for listing and also triggers a year-long study by the Department of Fish and Game (Department) of the species' status (Fish & G. Code, §§ 2074.2, 2074.6, and 2084); second, the Commission considers the Department's status report and information provided by other parties and makes a

final decision to formally list the species as endangered or threatened (Fish & G. Code, § 2075.5).

To be accepted by the Commission, a petition to list a species under CESA must include sufficient scientific information that the listing may be warranted. (Fish & G. Code, § 2072.3, Cal. Code Regs., tit. 14, § 670.1, subds. (d) and (e).) The petition must also include information regarding the species' population trend, range, distribution, abundance and life history; factors affecting the species' ability to survive and reproduce; the degree and immediacy of the threat to the species; the impact of existing management efforts; suggestions for future management of the species; the availability and sources of information about the species; information about the kind of habitat necessary for survival of the species; and a detailed distribution map. (Fish & G. Code, § 2072.3, Cal. Code Regs., tit. 14, §670.1, subd. (d)(1).) In deciding whether it has sufficient information to indicate the petitioned listing may be warranted, the Commission is required to consider the petition itself, the Department of Fish and Game's written evaluation report, and other comments received about the petitioned action. (Fish & G. Code, § 2074.2.)

The requisite standard of proof to be used by the Commission in deciding whether listing may be warranted (i.e. whether to accept or reject a petition) was described in *Natural Resources Defense Council* v. *Fish and Game Commission* (1994) 28 Cal.App.4<sup>th</sup> 1104. In the *NRDC* case, the court determined that "the section 2074.2 phrase 'petition provides sufficient information to indicate that the petitioned action may be warranted' means that amount of information, when considered in light of the Department's written report and the comments received, that would lead a reasonable person to conclude there is a substantial possibility the requested listing could occur..." (*NRDC*, supra, 28 Cal.App.4<sup>th</sup> at page 1125.) This "substantial possibility" standard is more demanding than the low "reasonable possibility" or "fair argument" standard found in the California Environmental Quality Act, but is lower than the legal standard for a preliminary injunction, which would require the Commission to determine that a listing is "more likely than not" to occur. (Ibid.)

The *NRDC* court noted that "this 'substantial possibility' standard involves an exercise of the Commission's discretion and a weighing of evidence for and against listing, in contrast to the fair argument standard that examines evidence on only one side of the issue. (*NRDC*, supra, 28 Cal.App.4<sup>th</sup> at page 1125.) As the Court concluded, the decision-making process involves:

"...a taking of evidence for and against listing in a public quasi-adjudicatory setting, a weighing of that evidence, and a Commission discretion to determine essentially a question of fact based on that evidence. This process, in other words, contemplates a meaningful opportunity to present evidence contrary to the petition and a meaningful consideration of that evidence." (Id. at 1126.)

Therefore, in determining whether listing "may be warranted," the Commission must consider not only the petition and the report prepared on the petition by the Department, but other evidence introduced in the proceedings. The Commission must decide this question in light of the entire record.

#### II COMMISSION FINDING

For the reasons stated below, the Commission finds that the petition to list the western burrowing owl (*Athene cunicularia hypugaea*) as a threatened or endangered species under CESA, when considered in light of the Department's evaluation report and all other evidence

presented to the Commission, does not provide sufficient information to indicate that the petitioned action may be warranted, and that the petition must therefore be rejected.

#### III STATEMENT OF REASONS

This statement of reasons sets forth an explanation of the basis for the Commission's finding and its rejection of the petition to list the western burrowing owl as endangered or threatened. It is not a comprehensive review of all information considered by the Commission and for the most part does not address evidence that, while relevant to the proposed listing, was not at issue in the Commission's decision.

1. The Commission finds that there are significant deficiencies in the available information about western burrowing owls in California, and finds that these deficiencies were not remedied by information provided by the petitioners, by the Department or through public comment.

In order to accept this petition, the Commission is required to determine that it has information to persuade a reasonable person that there is a substantial possibility that the western burrowing owl will be listed. As the decision in the *NRDC* case makes clear, the Commission must critically evaluate and weigh all evidence, and this process does not allow the Commission to resolve all uncertainties in favor of either the proponents or opponents of the listing. The Commission may deal with data gaps by drawing inferences based on available information or by relying on expert opinion that the Commission finds persuasive, but in the end the petition and other information presented to the Commission must affirmatively demonstrate the species meets the criteria for protection as a candidate species.

The informational deficiencies relating to the western burrowing owl petition fall into two broad categories:

- 1. The petition contains a lengthy compilation of available information, but even with this information, historical data are very thin. Data from before 1991 consists of anecdotal accounts and local surveys in some areas but little information at all in other areas. While anecdotal information can be important, for example in helping identify a species' range, it cannot be used to accurately establish abundance or population trends. Because of this deficiency, estimates of historic abundance of western burrowing owls as well as trend figures are fraught with uncertainty and, in the Commission's view, are unreliable.
- 2. Current and recent data about western burrowing owl numbers and distributions are also spotty, further complicating the Commission's task of determining the possibility that the western burrowing owl will be listed. For large parts of the state, the Commission was presented with no data or only sketchy anecdotal information about the current population and distribution of western burrowing owls. This makes it difficult to accurately estimate the abundance of western burrowing owls in the state or even short-term or intermediate trends.

These problems were not remedied to any significant measure by information that was subsequently provided by the Department or by others who submitted comments and information in response to the petition. In many cases, the comments offered by the

Department and others brought the information problems and resulting uncertainties into sharper focus.

In noting these deficiencies, the Commission acknowledges that data for use in listing decisions is never complete. Historical data in particular is unavailable for many species, and a lack of historical data cannot be cured by surveys or studies at the time the petition is prepared. For those reasons, gaps in information are not necessarily fatal to a petition to list a species, provided the Commission at this point in the process can discern, despite the factual uncertainties, a substantial possibility that the species is in serious danger of extinction.

With western burrowing owls, the gaps in information are very significant. Large geographic areas of the state – including most arid areas, parts of the Sacramento and San Joaquin valleys and the Modoc Plateau – are essentially data "black holes" where basic information about western burrowing owl abundance and range is lacking. The Commission was presented with no useful analysis about what use the species may make of these areas and the significance of these areas to the overall stability of western burrowing owls in California. While vast arid areas are generally assumed to be sparsely populated, this assumption would appear particularly suspect within agriculturally developed regions of the desert. This lack of information makes it difficult for the Commission to conclude there is a substantial possibility that the western burrowing owl would ultimately be listed if it were accepted as a candidate species.

# 2. The Commission finds that habitat loss caused by urban development is an immediate and serious threat to survival of breeding populations in coastal areas from the San Francisco Bay Area to coastal Southern California.

The petition relies heavily on data collected in surveys during 1991-1993 by DeSante et al. (1996). (Results of these surveys were also discussed in an unpublished report by DeSante and Ruhlen (1995) and in later papers). In the 1996 study, the authors reported that western burrowing owls had apparently been extirpated as a regular breeding species from Napa, Ventura and coastal San Luis Obispo counties and had abandoned "all recent breeding sites" in Marin, San Francisco, Santa Cruz counties. The same surveys located fewer than five breeding pairs in each of Sonoma, San Mateo, Santa Barbara, Orange and coastal Monterey counties, and the authors viewed these breeding populations as unlikely to persist if population trends continued in the 1990s. DeSante et al. also described the population around the north end of San Francisco, San Pablo and Suisun bays as either non-existent or a small remnant population and generally identified remaining populations of western burrowing owls along the central and southern coasts and in southern and eastern portions of the San Francisco Bay Area to be at risk because of low numbers and land development pressures. DeSante also said breeding western burrowing owls had apparently been extirpated from the Coachella Valley in Riverside County.

The petition and a subsequent letter from the petitioners identify most of the same areas as DeSante as suffering extirpations or near extirpations, with a few variations. The petitioners describe the western burrowing owl as having been extirpated from Napa, Marin, San Francisco and Santa Cruz counties; extirpated or nearly extirpated from the Coachella Valley; and nearly extirpated from the following counties or portions of counties: southwestern Solano, western Contra Costa, Sonoma, San Mateo, Monterey, coastal San Luis Obispo, Santa Barbara, southern Ventura, southern Los Angeles, Orange, and San Diego; and extirpated or nearly extirpated from other locations in several counties. Petitioners removed several areas (Mendocino, Humboldt, western San Bernardino and western Riverside counties) from their list of areas suffering western burrowing owl extirpations, apparently because of information that

came to light during the Department's review and public comment on the petition. Reports about a small breeding population of western burrowing owls in the Coachella Valley, for example, led the petitioners to indicate western burrowing owls are "extirpated or nearly extirpated" in that area rather than clearly extirpated, as they originally asserted.

The Department provided some additional information regarding these areas. The Department stated that breeding western burrowing owls are no longer present in coastal Santa Barbara County (some may remain in the Cuyama Valley); are possibly present at a few breeding sites in Ventura County; are no longer present in Los Angeles County except for the Antelope Valley, where they may be threatened by future development; are nearing extirpation in Orange County with the exception of a nesting colony at Seal Beach Naval Weapons Station; and are present in small numbers in San Diego County, where some western burrowing owls are threatened by development but others are on habitat that the Navy is managing for the species.

Available evidence is not sufficient, in the Commission's view, to establish that Mendocino and Humboldt counties ever supported breeding populations of western burrowing owls. The petitioners' amended list of areas from which the western burrowing owl has been extirpated or is nearing extirpation still appears to overstate extirpation and near-extirpations in some respects, as described below. But the Commission concludes that the weight of available evidence indicates that breeding populations of western burrowing owls have already been extirpated from certain areas around the San Francisco Bay Area, central coast, and coastal Southern California, and that remaining breeding populations of the western burrowing owl in these regions are in serious danger of being extirpated because of the small number of western burrowing owls and high development pressures on western burrowing owl habitat.

3. In contrast to the decline of western burrowing owl populations in the San Francisco Bay Area and along the coastal areas of Southern California, western burrowing owl numbers in other areas of California appear to be stable or growing. Data provided in the petition and elsewhere fail to establish an overall decline in the number of western burrowing owls in the state.

The western burrowing owl surveys conducted in 1991-1993 by DeSante and others are important because they stand as the only attempt to provide a relatively comprehensive, statewide estimate of western burrowing owl abundance and distribution. According to the study's authors, little was known about the western burrowing owl's distribution and relative abundance before their work. The study involved surveying for western burrowing owls within randomly selected blocks as well as within blocks where anecdotal information indicated there were breeding western burrowing owls in the 1980s. Although the number of individual western burrowing owls was noted, the study focused on identifying local breeding groups and comparing the number of groups to those that had been identified during the 1980s. Except for an area east of San Francisco Bay, no earlier data on western burrowing owl abundance was available, so the study used changes in the number of breeding groups to indirectly assess changes in population.

The authors identified a total of 165 breeding groups from information generated in the 1980s. While surveys found only 76 of the same groups recorded during the 1980s, additional groups were discovered during the surveys such that "there was no overall negative decline" in breeding groups, although certain regions "experienced considerable declines." The petition characterizes the DeSante reports as estimating a statewide decline in breeding population of 8 percent per year from the 1980s to the mid-1990s; the Department characterizes the estimated decline as 4-7 percent a year, not counting the Imperial Valley populations (which if

considered would presumably reduce the overall decline). DeSante also reported a non-significant increase in the number of breeding pairs from 1991 to 1992 and a significant (19 percent) increase in the number of breeding pairs from 1992 to 1993. DeSante described the study's population estimate as "likely biased low," and recommended that, among other things, further surveys be conducted to locate additional nesting pairs of western burrowing owls. The Commission also received information that difficulties in detecting western burrowing owls likely result in underreporting of western burrowing owls during surveys.

The U.S. Fish and Wildlife Service, the federal agency responsible for administering the federal Endangered Species Act, Migratory Bird Treaty Act and other federal wildlife laws, has for years conducted a Breeding Bird Survey that found significant increases in relative abundance of western burrowing owls within California for the 1966-2001 period. The agency characterized the data quality as good, although as noted above, the Commission believes that available data does not provide a complete picture of western burrowing owl abundance, distribution and trend in the state. Nonetheless, the Breeding Bird Survey supports a conclusion that while available information shows declines and threatened local extirpations of western burrowing owls in the coastal areas described above, it is not clear that there has been an overall decline in the state's western burrowing owl population over the past 20 or more years.

Large populations of the species exist in the Imperial Valley, the Central Valley and the Palo Verde Valley, and the Commission was presented with evidence that the number of western burrowing owls in some areas, especially the Imperial Valley and Palo Verde Valley, has increased over historic levels because of irrigated agriculture. There was also evidence that the petition underestimated western burrowing owl abundance. For example, the Palo Verde Valley, which was outside of the survey area of the DeSante study that the petition relied on. may have significantly greater western burrowing owl numbers than the petition assumes. The petition describes this area as the southern desert range where western burrowing owls occur as small, scattered populations and have historically never been common. In contrast, the Department found evidence that this area likely supports the second largest western burrowing owl core population in Southern California, estimated at 500-1000 pairs. The Commission believes it is likely that far more breeding western burrowing owls are located in the Carrizo Plain than have been documented, as some experts have suggested. It is also apparent that DeSante and the petition underestimated population and range by omitting arid areas from their calculations on the basis that populations there are assumed to be sparse. Even if the deserts are sparsely populated outside of irrigated areas, the geographic area covered by this habitat is enormous so the population there is not likely to be trivial. Furthermore, the distribution of western burrowing owls over these areas could be expected to further add to the species' stability in California.

In short, the Commission agrees with the Department that available information does not clearly establish a net decline in western burrowing owl abundance in the state. While it is possible that expansion of western burrowing owl numbers in some areas, particularly arid areas that are being irrigated for agriculture, may be offsetting in whole or in part the documented losses in coastal counties and elsewhere, the data is not sufficient to establish an increase, just as it is insufficient to document an overall decline in statewide western burrowing owl abundance.

The Commission concludes that the size and health of several of the state's largest populations of western burrowing owls, the wide geographic area of the state occupied by the western burrowing owl, and the lack of evidence indicating an overall decline in western burrowing owl abundance within California are inconsistent with the petition's assertions that western burrowing owls face serious danger of extinction in California.

4. Apart from the high risk to western burrowing owls in coastal areas, the Commission does not believe identified threats to the species present a serious danger, individually or in the aggregate, to the western burrowing owls' survival.

Beyond the threat to western burrowing owls posed by urban development in coastal areas, the petition identifies a number of other threats to the species, none of which the Commission determines to be a serious threat to western burrowing owls in other regions of the state.

There is undoubtedly continuing loss of western burrowing owl habitat as a result of population growth and urban development, and the petition emphasizes that rapid growth rates in the Imperial Valley and southern Central Valley, where two of the largest concentrations of western burrowing owls are found, posed particularly serious threats to the species. But the Commission does not see evidence that this growth is a potential serious danger to the western burrowing owl in the foreseeable future, given the western burrowing owls' broad distribution in these regions as well as other areas of the state. For example, the Commission heard testimony that growth in the Imperial Valley was expected to consume only a fraction of 1 percent of the undeveloped land in the Imperial Valley. Impacts of urban development on western burrowing owls in the Central Valley, Imperial Valley, and other non-coastal areas of the state may be moderated by the western burrowing owls' tolerance of human encroachment, as evidenced by their continued presence at urban settings such as golf courses, parks, airports and vacant lots. Furthermore, at least some of development impacts to western burrowing owls in the San Joaquin Valley are being indirectly mitigated under CESA because western burrowing owls in many places share habitat with currently listed species such as the San Joaquin kit fox, and therefore benefit when natural lands are permanently conserved for those listed species.

The petition asserts that agricultural practices, including disking, plowing, grazing and use of agricultural chemicals, threaten the western burrowing owl. While one might reasonably expect some adverse effects on western burrowing owls from agricultural practices such as cultivation and herbicide and pesticide use, the Commission was not presented with information that would indicate agricultural practices are responsible for significantly depressing western burrowing owl numbers or otherwise endangering the species. To the contrary, the largest and most stable or growing populations of western burrowing owls are found within areas under intensive agricultural use, including the Imperial Valley, southern San Joaquin Valley and Palo Verde Valley, suggesting that agricultural practices on balance do not seriously threaten western burrowing owls. The Department reported that while agricultural contaminants can affect western burrowing owls, recent research into western burrowing owl reproduction and survival in agricultural areas found no population-level effects on the species from pesticides. The Department of Food and Agriculture also stated that it has assessed the ecological risk from rodenticide use as "de minimus" and offered its opinion that such use would have no effect on western burrowing owl populations. The petition itself points out that grazing can have positive effects on western burrowing owl habitat by keeping grass at a level favored by western burrowing owls, while noting that some rangeland management practices may have negative effects on western burrowing owls such that the complete picture of grazing impacts are "unknown". In short, the Commission received little evidence that agriculture poses a serious danger to the western burrowing owl; in fact the weight of available evidence indicates the western burrowing owl is adaptive to agricultural settings and is generally doing better in agricultural regions than in non-agricultural settings.

The petition identified rodent control efforts, including the use of rodenticides, as a threat to the western burrowing owl. Information presented to the Commission clearly establishes the importance of ground squirrels to the continued health of western burrowing owl populations, since western burrowing owls rely heavily on burrows excavated by ground squirrels. Given the importance of ground squirrels to western burrowing owls, the Commission can conclude that eradication of ground squirrels from areas used by western burrowing owls, or even overzealous efforts to control ground squirrel populations, will harm western burrowing owls. But the Commission was not presented with evidence that ground squirrel control programs, on agricultural lands or elsewhere, have actually reduced squirrel numbers to the point that western burrowing owls are unable to find suitable burrows. Again, the stability of western burrowing owl populations in agricultural areas such as the Imperial Valley and Central Valley would suggest that rodent control programs have not seriously limited the western burrowing owls' use of agricultural lands.

Water transfers from Imperial Valley agriculture to San Diego municipal uses and possible future changes in agricultural practices were also cited in the petition as a threat to the large western burrowing owl population in the Imperial Valley. But the Commission believes the large number of western burrowing owls in the Imperial Valley and their distribution over a very large area will mean that continued urban development and the recently approved water transfer between the Imperial Irrigation District and the San Diego County Water Authority do not pose a serious danger to the species. The pending transfer of water from Imperial Valley to San Diego will result in fallowing a small percentage of agricultural land within the region, and the Commission received evidence that fallowed agricultural land can provide habitat for the western burrowing owl. A large percentage of the state's western burrowing owls are found in the Imperial Valley and agricultural practices such as vegetation control along irrigation canals apparently supports western burrowing owls in greater numbers than would be expected in the absence of agriculture. But the Commission is not persuaded that because of this concentration of western burrowing owls in the Imperial Valley, the species is at serious risk from changes in agricultural land use practices. As stated in the Department's report, research in the 1970s showed similar demographic characteristics for Imperial Valley western burrowing owls as recent studies, suggesting stability over time. Although it is possible the future could bring widespread changes in Imperial Valley agricultural practices that could have an impact on western burrowing owls in the area, the Commission cannot anticipate what future agricultural practices will be or, of course, what those changes will mean for continued viability of the dense western burrowing owl populations in the area.

The petition discusses a number of other threats to the species, including but not limited to predation, disease, shrinking and isolated populations and vehicle strikes. The Commission has considered each of these, and has concluded that in light of all the available information, these threats do not individually or collectively pose a serious danger to the western burrowing owl's survival in California, now or in the foreseeable future. Western burrowing owls are habitat generalists that have adapted to suitable habitat in agricultural and urban settings. They respond favorably to management practices. The U.S. Fish and Wildlife Service stated in a 2003 conservation plan (as quoted by in the Department's evaluation report) that western burrowing owls in California have exhibited an "incredible tolerance for human encroachment and degradation of native habitats." The species has undoubtedly been adversely affected by some of the activities and threats identified in the petition, but there is not sufficient evidence that these impacts put the species at risk throughout significant portions of the state such that listing may be warranted.

5. After examining all the evidence presented to it, the Commission does not believe there is a substantial possibility that the San Francisco Bay Area, central coast areas and coastal Southern California where the western burrowing owl is in greatest danger of local extinction constitute a "significant portion" of the species' range within the meaning of Fish and Game Code section 2062.

As noted above in the review of applicable legal standards, a species meets the statutory criteria for listing as endangered under CESA if it is presently "in serious danger of becoming extinct throughout all, or a significant portion, of its range..." (Fish & G. Code, §2062). A species qualifies for listing as threatened if that serious danger is likely to materialize in the foreseeable future, but is not a present danger. (Fish & G. Code, §2067). Therefore, the Commission must determine whether there is sufficient information to indicate that those areas in which the western burrowing owl is in present or future serious danger of extirpation may collectively represent a "significant portion" of the species' range.

The term is not defined by statute or regulation, nor does California case law guide this determination. Several federal courts have, however, interpreted the same term which appears in the statutory definitions of "endangered" and "threatened" species under the federal Endangered Species Act. In *Defenders of Wildlife et al. v. Norton et al.*, 258 F.3d 1136 (9<sup>th</sup> Cir. 2001), the court acknowledged that the determination as to what constitutes a significant portion of a species' range is necessarily one that must be made on a case by case basis (*id.* at 1143), and rejected the plaintiffs' argument that a projected loss of 82 percent of habitat for the flattailed horned lizard must constitute extinction throughout a significant portion of that species' range (*ibid*).

...[I]t simply does not make sense to assume that the loss of a predetermined percentage of habitat or range would necessarily qualify a species for listing. A species with an exceptionally large historic range may continue to enjoy healthy population levels despite the loss of a substantial amount of suitable habitat. Similarly, a species with an exceptionally small historic range may quickly become endangered after the loss of even a very small percentage of suitable habitat.

(*Ibid.*) The court nonetheless went on to say that loss of the species' viability in "major geographic areas" can represent extinction throughout a significant portion of its range, ruling that the U.S. Interior Secretary failed to follow the law by not expressly considering whether the potential loss of lizard habitat on private lands would represent extinction throughout a significant portion of its range:

The Secretary necessarily has a wide degree of discretion in delineating "a significant portion of its range," since the term is not defined in the statute. But where, as here, it is on the record apparent that the area in which the lizard is expected to survive is much smaller than its historical range, the Secretary must at least explain her conclusion that the area in which the species can no longer live is not a "significant portion of its range."

(*Id.* at 1145). In a similar case involving a federal decision to list the Canada lynx as "threatened" instead of "endangered," a district court again ruled against the government for not more fully explaining its "counterintuitive" determination that the potential extirpation of lynx from three of the four regions where it historically occurred in the contiguous states would not represent an extinction throughout a significant portion of its range. (*Defenders of Wildlife et al. v. Norton et al.*, 239 F.Supp.2d 9 (D.D.C. 2002).)

The petition calculated that breeding populations of western burrowing owls have been extirpated or nearly extirpated from *at least* 36.3 percent of the species' historic range in California, with extirpations covering 10.2 percent of the historic range and western burrowing owls on an additional 26.1 percent of the range "trending toward" extirpation. During the review period, the petitioners reduced their initial estimate by nearly 40 percent to say the species had been extirpated or nearly extirpated from 22 percent of its historic range in the state. Even this revised figure exaggerates the actual area of western burrowing owl habitat from which the western burrowing owl has been extirpated or is in serious danger of becoming extirpated. First, the petition overstates the areas of suitable habitat within the regions where the western burrowing owl has been extirpated or is threatened with extirpation. For example, the petition included all of Santa Clara and Monterey counties as lost habitat for the species despite the fact these counties have mountain and forest habitats that are not suitable for the western burrowing owl. The downward revision in the petitioners' estimates has reduced the magnitude of these errors, but not eliminated them.

In addition, as noted above, the petition also underreports the species' current range in California by omitting arid areas of the state from range calculations, which has the effect of greatly inflating the petition's estimate of the proportion of the range that has been lost or may be lost in the foreseeable future. The petition explained that these arid areas (which account for about 40 percent of the western burrowing owl's range in the state, according to the Department) were not computed as western burrowing owl habitat because "the species has never been common" in these areas. Of course, to say an area is sparsely populated by a species is not the same as saying that it is not habitat or is outside the range of the species, but that is just what the petition appears to be saying. If adjustments were made for these inaccuracies, the percentage of the western burrowing owl's historic range in California that has been or may be lost in the foreseeable future would be significantly less than is claimed by petitioners.

Regardless of the percentage of range that may be lost in the foreseeable future, other factors are relevant to determining whether the potential losses represent a "significant portion" of the species' range in California. On this point, the Commission finds insufficient information and evidence at this time to support the contention that the areas in which the western burrowing owl has experienced the most significant declines constitute a significant portion of its range in California. No evidence was presented that the western burrowing owl populations that are in the areas most likely to experience local extinctions are genetically different from inland western burrowing owl populations that are healthy and stable. Such genetic differences would certainly make it more likely that a particular portion of the range would be significant. Similarly, the Commission was presented with no evidence that western burrowing owls breeding in imperiled coastal habitat are important to continued viability of western burrowing owls elsewhere. For example, no evidence is available that western burrowing owls reared in the threatened areas are breeding elsewhere in the state and helping to sustain or increase other populations. To the contrary, evidence suggests that many of the coastal regions where western burrowing owls are now most at risk have historically supported smaller, less dense populations than some of the areas farther inland.

The Commission also notes that the western burrowing owl's plight in these coastal areas is not significantly different than the plight of many other species of wildlife found in these areas. No species does well when its habitat is paved over. As California continues to grow, wildlife habitat will be lost to urban development. Listing may be warranted for some of the affected species, but where, as with the western burrowing owl, there is no evidence that incremental

loss of habitat is creating serious danger of broader extinctions, the Commission is unable to find there is a substantial possibility that the species will be listed.

The Commission concludes that there is insufficient information and evidence at this time to support a contention that the coastal areas identified above where western burrowing owls have been extirpated or are most in danger of being extirpated represent a significant portion of the range in California. In reaching this conclusion, the Commission does not suggest there is no value in working to ensure that western burrowing owls and other species are maintained and conserved over as much of their historic ranges as possible. But the goal of conservation of these animals does not allow the Commission to extend the protections of CESA when the legal standard for acceptance of a petition has not been met.

### CONCLUSION

In summary, the Commission has weighed all the scientific and general evidence in the petition, the Department's evaluation report, and written and oral comments received from the public, and, based upon that weighing of the evidence, has determined that the petition provides insufficient evidence to indicate that the petitioned action may be warranted. As a result, the Commission cannot determine that the petitioned listing under CESA of western burrowing owl may be warranted, and concludes that, based on all the relevant and available information, there is not a substantial possibility that the western burrowing owl will be listed at the end of a one-year status review and candidacy period. Therefore, the petition is rejected.

Fish and Game Commission

Dated: February 10, 2004 Robert R. Treanor

**Executive Director**